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| 10/782,227      | 02/19/2004  | Charles Edward Akers JR. | 2003-0701.01        | 5201             |

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| EXAMINER |
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SHOSHO, CALLIE E

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| ART UNIT | PAPER NUMBER |
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1714

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/782,227

**Applicant(s)**

AKERS ET AL.

**Examiner**

Callie E. Shosho

**Art Unit**

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 4/17/06.

**Claim Rejections - 35 USC § 102**

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-8 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Sun et al. (U.S. 2004/0127619).

The rejection is adequately set forth in paragraph 5 of the office action mailed 1/13/06 and is incorporated here by reference.

4. Claims 1, 3, 9, 11-12, and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Sacoto et al. (U.S. 2004/0102541).

The rejection is adequately set forth in paragraph 6 of the office action mailed 1/13/06 and is incorporated here by reference.

**Claim Rejections - 35 USC § 102/103**

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-8 and 15 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Akers, Jr. et al. (U.S. 6,652,634).

The rejection is adequately set forth in paragraph 9 of the office action mailed 1/13/06 and is incorporated here by reference.

**Claim Rejections - 35 USC § 103**

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akers, Jr. et al. (U.S. 6,652,634).

The rejection is adequately set forth in paragraph 12 of the office action mailed 1/13/06 and is incorporated here by reference.

**Response to Arguments**

9. Applicants' arguments filed 4/17/06 have been fully considered but they are not persuasive.

Specifically, applicants argue that Sun et al. is not a relevant reference against the present claims given that Sun et al. disclose that the preferred amount of pigment is about 3% while the present claims require 4 to 4.5% pigment.

However, it is noted, "nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of

claims”, *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). A fair reading of the reference as a whole clearly discloses the use of about 2.5 to about 5% pigment, which clearly overlaps the amount presently of pigment presently claimed.

Applicants also argue that Sun et al., Sacoto et al., and Akers, Jr. et al. are not relevant references against the present claims given that the examples of each reference utilize pigment in amount of about 3% while present claims require 4 to 4.5% pigment.

However, it is noted, “applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others”, *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). A fair reading of each reference as a whole clearly discloses the use of about 2.5 to about 5% pigment (Sun et al.) or about 2 to about 6% pigment (Sacoto et al. or Akers, Jr. et al.) which amounts clearly overlap those presently claimed.

Applicants also point to MPEP 2131.03 and argue that Sun et al., Sacoto et al., and Akers, Jr. et al. are not relevant references against the present claims given that if the claims are directed to a narrow range and a reference like Sun et al., Sacoto et al., or Akers, Jr. et al. teaches a broad range, the reference does not anticipate the present claims.

However, it is noted that MPEP 2131.03 states that when “the prior art discloses a range which touches, overlaps, or is within the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made for anticipation. In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with

“sufficient specificity” to constitute an anticipation under the statute. What constitutes “sufficient specificity” is fact dependent. If the claims are directed to a narrow range, the reference teaches a broad range and there is evidence of unexpected results in the claimed narrow range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with “sufficient specificity” to constitute an anticipation of the claim”.

With respect to Sun et al., given that Sun et al. disclose amount of pigment, i.e. about 2.5% or about 3% to about 5% which overlaps the amount of pigment presently claimed and given that Sun et al. disclose that the amounts of pigment are about 2.5% or about 5% which clearly includes amounts slightly above or below the recited amounts, it is the examiner’s position that Sun et al. do disclose the amount of pigment with “sufficient specificity”.

Additionally, it is noted that as set forth in MPEP 2131.03, if the claims are directed to a narrow range, the references teaches a broad range and there is evidence of unexpected results in the claimed narrow range, it may be reasonable to conclude that the narrow range is not disclosed with “sufficient specificity” to constitute an anticipation of the claim. However, there is no evidence of unexpected results in the claimed narrow range in the present application.

Similarly, with respect to Sacoto et al. and Akers, Jr. et al., applicants argue that each reference does not disclose amount of pigment with “sufficient specificity” to constitute an anticipation of the claims. However, given that each reference discloses amount of pigment, i.e. about 2 to about 6 %, which clearly overlaps the amount of pigment presently claimed, it is the examiner’s position that Sacoto et al. and Akers, Jr. et al. each do disclose the amount of pigment with “sufficient specificity”. Further, as set forth above, it is noted that there is no evidence of unexpected results in the claimed narrow range.

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With respect to Akers, Jr. et al., it is noted that claims 1-8 and 15 are alternatively rejected under 35 USC 103. Applicants argue that motivation to utilize the presently claimed amount of pigment cannot be assumed as elements of the claims, especially the dispersant, are unique with respect to obviousness and point to MPEP 2144.05.

However, it is noted that with respect to the above claims, Akers, Jr. et al. clearly disclose dispersant as presently claimed. Further, it is noted that as set forth in MPEP 2144.05, in the case where the claimed range “overlap or lie inside ranges disclosed by the prior art”, a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

It is the examiner’s position that it would have been within the skill level of one of ordinary skill in the art to choose amount of pigment, including that presently claimed, depending on the desired end use of the ink as well as the color density of the ink. Further, it is significant to note that Akers, Jr. et al. disclose that the amount of pigment utilized depends on the pigment structure. Given that Akers, Jr. et al. disclose pigment having aromatic rings as presently claimed, it therefore would have been obvious to one of ordinary skill in the art to choose amount of pigment including that presently claimed.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to choose amount of pigment in Akers, Jr. et al., including that presently claimed, in order to produce ink with desired color density, and thereby arrive at the claimed invention.

With respect to present claims 9-14, applicants note, and the examiner agrees, that the examples of Akers, Jr. et al. do not disclose ratio of methacrylic acid (MAA) to

poly(propylene glycol)-4-nonylphenyl ether acrylate (NPHPPG) and poly(ethylene glycol)2, 4, 6-tris-(1-phenylethyl)phenyl ether methacrylate (TRISA) as presently claimed.

However, it is noted that “applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others”, *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). A fair reading of the reference as a whole discloses that in the dispersant, the ratio of hydrophilic portion, i.e. MAA, to hydrophobic portion, i.e. TRISA and NPHPPG, is 4:1:1 to 40:2:1. Further, it is disclosed that the hydrophilic portion is responsible for controlling the solubility of the dispersant and the stability of the dispersion while the hydrophobic portion anchors the dispersant to the pigment (col.4, lines 26-345 and 53-54 and col.6, lines 64-67). Thus, it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to choose ratio of MAA to TRISA and NPHPPG combined, including at most about 3 parts to 1 part as presently claimed, in order to control the solubility of the dispersant and the stability of the ink, and thereby arrive at the claimed invention.

### **Conclusion**

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period



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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CS  
6/16/06

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714